ABSTRACT

A device for thermal imaging of target surfaces includes a housing (12) with an opening (14) for directing incident infrared rays along an optical path through an optical assembly (40) optimized to have a spectral band width of 3 to 14um, onto a UFPA detector (48) having a spectral transmission window (84) which has a bandwidth 3 to 14um sufficient to pass all infrared rays of interest over a broad temperature range. Filter means (44) including at least two filters (78, 80), having a band width in the ranges of 3 to 8um and 8 to 14um, respectively, allow for the placement of either specialized IR filter in the optical path so as to attenuate and/or pass certain wavelengths of the infrared rays depending on the specific application in a broad range between -40°C to 2000°C. The device allows for thermal imaging even in daytime applications in sunlight.